

WHAT IS CLAIMED IS:

1. A biometric authentication system comprising a first enterprise system, a second enterprise system, and a communication network interconnecting the first enterprise system and the second enterprise system, wherein:

the first enterprise system includes

a registration apparatus for acquiring a user's biometric information in advance of authentication, extracting features therefrom, and converting the features to template data,

a first authentication apparatus for acquiring the user's biometric information during authentication, extracting features therefrom, and converting the features to authentication data, and

a first database server apparatus for receiving the template data from the registration apparatus, storing and managing the template data, receiving the authentication data from the first authentication apparatus during authentication, comparing the authentication data with the template data, and thereby authenticating the user;

and the second enterprise system includes

a second authentication apparatus for acquiring the user's biometric information, extracting features therefrom, and converting the features to authentication data, and

a second database server apparatus for receiving the authentication data from the second authentication apparatus, requesting corresponding template data from the first database server apparatus, receiving the corresponding template data from the first database server apparatus, comparing the authentication data with the corresponding template data, thereby authenticating the user, and storing and managing the template data if the user is authenticated successfully.

2. The biometric authentication system of claim 1, wherein the second database server apparatus sends the authentication data received from the second authentication apparatus to the first database server apparatus, and the first database server apparatus includes a one-to-many biometric identification unit that performs a one-to-many comparison between the authentication data received from the second database server apparatus and all of the template data stored and managed by the first database server apparatus to find the template data corresponding to the authentication data.

3. The biometric authentication system of claim 1, wherein the first database server apparatus includes a billing unit that charges the second enterprise system a fee when the second database server apparatus requests corresponding template data and the first database server apparatus sends the corresponding template data to the second database server apparatus.

4. The biometric authentication system of claim 3, wherein the second database server apparatus sends the authentication data received from the second authentication apparatus to the first database server apparatus when requesting the corresponding template data, and the first database server apparatus includes a one-to-many biometric identification unit that performs a one-to-many comparison between the authentication data received from the second database server apparatus and all of the template data stored and managed by the first database server apparatus to find the template data corresponding to the authentication data.

5. The biometric authentication system of claim 1, wherein:

the first database server apparatus includes a first personal-information database storing personal information about the user;

when the first database server apparatus sends the corresponding template data to the second database server apparatus, the first database server apparatus also sends the personal information about the user to the second database server apparatus; and

the second database server apparatus includes a second personal-information database that stores and manages the personal information about the user received from the first database server apparatus.

6. The biometric authentication system of claim 5, wherein the first database server apparatus includes a billing unit that charges the second enterprise system a fee when the first database server apparatus sends the corresponding template data and the personal information about the user to the second database server apparatus.

7. A biometric authentication system comprising a first enterprise system, a second enterprise system, and a communication network interconnecting the first enterprise system and the second enterprise system, wherein:

the first enterprise system includes a registration apparatus for acquiring a user's biometric information in advance of authentication, extracting features therefrom, and converting the features to template data,

a first authentication apparatus for acquiring the user's biometric information during authentication, extracting features therefrom, and converting the features

to authentication data, and

a first database server apparatus for receiving the template data from the registration apparatus, storing and managing the template data, receiving the authentication data from the first authentication apparatus during authentication, comparing the authentication data with the template data, thereby authenticating the user, receiving authentication data from the second enterprise system, and returning corresponding template data to the second enterprise system if the corresponding template data is stored in the first database server apparatus;

and the second enterprise system includes

a simplified registration apparatus for acquiring the user's biometric information during registration, extracting features therefrom, and converting the features to authentication data;

a second authentication apparatus for acquiring the user's biometric information during authentication, extracting features therefrom, and converting the features to authentication data, and

a second database server apparatus for receiving the authentication data from the simplified registration apparatus and the second authentication apparatus, sending the authentication data received from the simplified registration apparatus to the first database server apparatus, receiving the corresponding template data from the first database server apparatus, storing and managing the received template data, and comparing the authentication data received from the second authentication apparatus with the stored template data, thereby authenticating the user.

8. A database server apparatus for use in a first enterprise system that is linked by a communication network to a second enterprise system, for receiving biometric

template data and biometric authentication data from the first enterprise system, storing and managing the biometric template data, comparing the biometric authentication data with the biometric template data, thereby authenticating users of the first enterprise system, and supplying the biometric template data on request to the second enterprise system to enable users of the first enterprise system to become registered with the second enterprise system.

9. The database server apparatus of claim 8, comprising a one-to-many biometric identification unit that performs a one-to-many comparison between biometric authentication data received from the second enterprise system and the biometric template data stored and managed by the first database server apparatus to find the biometric template data requested by the second enterprise system.

10. The database server apparatus of claim 8, comprising a billing unit that charges the second enterprise system a fee when the database server apparatus sends the biometric template data to the second enterprise system.

11. The database server apparatus of claim 8, comprising a personal-information database storing personal information about the users of the first enterprise system, the personal information being sent to the second enterprise system together with the biometric template data requested by the second enterprise system.

12. The database server apparatus of claim 8, wherein the database server apparatus receives biometric authentication data from the second enterprise system, compares the received biometric authentication data with the requested biometric template data, and sends the requested biometric

template data to the second enterprise system only if the received biometric authentication data match the requested biometric template data.

13. A database server apparatus for use in a second enterprise system that is linked by a communication network to a first enterprise system, for receiving biometric authentication data from the second enterprise system, requesting corresponding biometric template data from the first enterprise system, receiving the requested biometric template data from the first enterprise system, storing and managing the received biometric template data, and comparing the biometric authentication data with the stored biometric template data, thereby authenticating users of the second enterprise system.

14. The database server apparatus of claim 13, wherein the database server apparatus sends the biometric authentication data received from the second enterprise system to the first enterprise system when requesting the corresponding biometric template data from the first enterprise system.

15. The database server apparatus of claim 13, comprising a personal-information database for storing personal information about the users of the second enterprise system, the personal information being received from the first enterprise system together with the requested biometric template data.